

Rescuing the People at Home: Navy SAR in Hurricane Floyd

When the storm dumped nearly 20 inches of rain – on top of more than 10 inches from Hurricane Dennis barely two weeks before – on eastern North Carolina and southern Virginia, local resources were quickly overwhelmed. People and property were in great danger, and there was little time to rescue them. Accounts of the suffering filled the nightly television newscasts. Military squadrons and their crew put their training and efforts toward helping their neighbors at home.

The call went out, and like many groups, Tidewater Navy organizations responded. The following articles describe how these unlikely partners came together to bring people literally out of the flood. They had to fly in terrible conditions, in situations they were not directly trained for as fleet SAR units.

This was not search-and-rescue under fire, but it was finding and retrieving people under extreme physical and emotional stress. It was, some would say, one of the Navy's finest hours in recent years, and it was done for the home folks.

Photo by Kevin Elliott, The Virginian-Pilot

Oceana SAR

by Cdr. Kimball Thompson,
with LCdr. Mike Pampalone and Lt. Mike Ruehring

I was the duty HAC for the Neptune Festival Air Show and had anticipated flying a couple of photo-ex missions, looking at static displays, and watching the show. But when I arrived early Friday afternoon, I discovered that the previous crew was flying Deliverance 965 near Tarboro, N.C., rescuing flood victims. The returning crew told us how they rescued 39 people.

When they had arrived on station, the on-scene commander was a Coast Guard C-130, whose controller told the Oceana crew to land at the designated landing zone for tasking. A Coast Guard representative showed them a road map spread on the hood of a car. The helo crew then launched on the first of many SAR efforts that morning: a family trapped by rising floodwaters in the hayloft of their barn northeast of Rocky Mount, N.C.

Finding the barn was hard. They had only local aviation maps and charts, and their small scale wasn't suitable for overland SAR. They managed to find the barn within 10 minutes by flying in the general direction given by the Coast Guard rep.

The crew made a quick sweep of the area and determined that the front of the barn was the only access into the structure. Four feet of water, with a strong current, covered the ground floor. Submerged farm vehicles surrounded the barn.

The family waved to the H-3 from the hayloft door. The Navy crew decided the rescue swimmer would have to swim to the barn and coax the family into the rescue basket. He carried an infant, a toddler, four adults, and a Chihuahua through the floodwaters to the rescue basket, cutting himself on submerged barbed wire and fencing in the process.

A trip to the LZ for drop-off, a quick refuel, and the crew responded to a call for available units needed to pull victims from a flooded gas station just north of Rocky Mount. Power lines surrounded the station, and the only clear area for hoisting was dangerously close to a relay tower. They

positioned the helicopter within 5 feet of support wires to the tower; one set 5 feet directly in front, one set running down the left side of the aircraft. The power lines were 10 to 15 feet below them and slightly aft of the hoisting station. Despite dangerous currents and debris, the swimmer transferred all six men from the water to the helicopter with the help of some superb helicopter positioning by the first crewman.

The next day, when we arrived on station, I was pleased to find that the Coast Guard C-130 had us check in with Slug 02, an E-2 Hawkeye from VAW-78. From the Hummer point of view, I suspect that controlling a dozen Navy, Marine, Coast Guard, National Guard, and civilian EMS helicopters, all at very low altitude, all trying hard to help, was like herding cats. With discrete squawks, periodic ops-normals, and centralized tasking, the E-2 crew substantially improved what would have been a hazardous and confusing situation.

Our initial tasking was the "search" part of SAR to check flooded areas for people who might still be trapped. If you take the typical rural neighborhood, add 15 feet of water, and shake vigorously, you get an idea of the scene. Dark, murky water with mud, sewage, submerged house trailers, cars, floating propane tanks, stumps, and logs covered by a sheen of petroleum.

We discussed how we would deploy the swimmer or corpsman, depending on the situation, using our standard confined-area landing procedures to get us into and out of confined-area hovers or confined-area




landings. If anyone felt uncomfortable, they would just call, "Wave it off," and we'd depart and reassess.

After searching the flooded town, someone suggested we have a deputy sheriff help us with local geography. He was available for pickup at the Emergency Operations Center (EOC). We landed at the local high school and learned it was the evacuee drop-off point, not the EOC. We were told, "Go north on the main road, then turn left at the railroad tracks and land next to the prison. You can get your deputy there."

We were assigned a search area of flooded neighborhoods. More dark water and more floating and submerged vehicles, houses, and pieces of wood. With the help of the local fire chief and the E-2 controller orbiting high above us, we located a pregnant woman about to deliver and flew her to a nearby hospital.

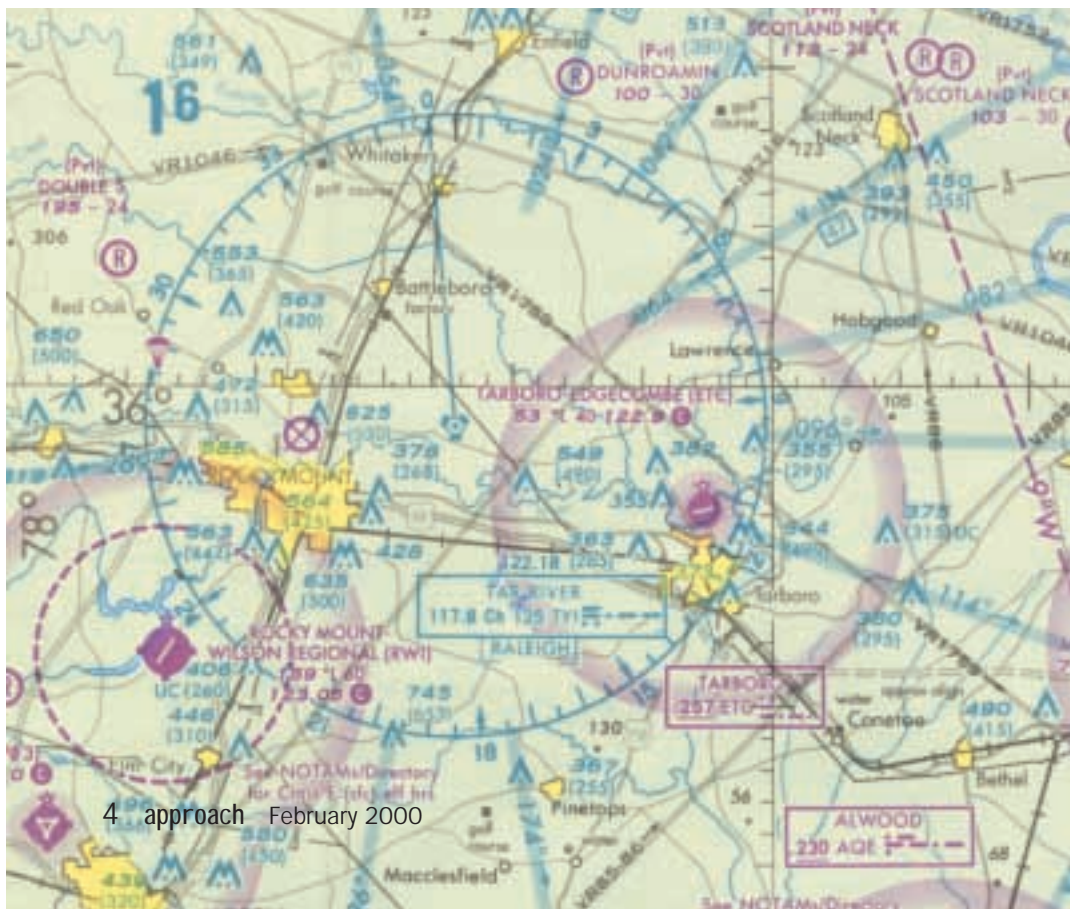
We train for relatively well-defined missions, usually involving a warfare specialty, and missions in support of national interests. Our standard SAR scenario is an over-water ejection by military aviators. We also practice confined-area landings and other over-land SAR missions, but we don't expect to use those skills.

In this case, two NAS Oceana SAR crews, as well as crews from other services and other communities, found themselves providing direct support to the taxpayers. See-and-avoid, as well as crew coordination, was essential. We had to constantly assess the risk to our crew versus the gain acquired from a rescue or humanitarian support. Sometimes, the training you considered secondary becomes primary for a long period of time and under unusual circumstances. 

Cdr. Thompson is head of the Naval Safety Center's Aircraft Operations Division, and LCdr. Pampalone and Lt. Ruehring are assigned to Oceana SAR.



Photo by Kevin Elliott, The Virginian-Pilot





The Fleet Angels

The hard-working crews of HC-2 enjoyed international media coverage, but the publicity wasn't a factor for them as they spent a week over the flood.

by Ltjg. Andrew Severson

For six days, HC-2, as part of a joint military effort, provided search and rescue relief to the hundreds of families trapped by the flooding Tar River. Using UH-3Hs, the squadron accounted for nearly 300 rescues, approximately one of every six people rescued by air units. Navy units rescued about a third of the flood victims.

As Floyd approached the eastern seaboard, HC-2 was tasked with several mission requirements. Eight aircraft and more than 100 people were deployed when the storm hit. Two days later, the hurricane left a large area in northeastern North Carolina under 9 feet of water.

Given the limited number of aircrew available, it was clear that experience would determine the success of the missions. There would be some difficult decisions ahead that required veteran pilots.

The rescues had to be made between obstacles, below power lines, and in deep, rushing waters. The possibility of a midair collision or hitting an obstruction was always a factor; at times, more than 20 rescue helicopters were flying in the same area. The helicopters were operating near their maximum weight capacities, and space was limited.

The two aircrewmembers were positioned to see out each side of the helo. The pilots' attention was divided between navigating,

searching, and monitoring aircraft performance.

The pilots made passes to identify obstacles and find approaches. Every trailer park in North Carolina seemed to be under power lines and surrounded by 75-foot trees. Closer to the ground were mazes of buildings, billboards, smaller trees, more power lines, and antennas. The UH-3H has 100 feet of hoist cable, but at that altitude, it was too hard for the crew chief to find his target.

The HAC sometimes decided that a low hover, under the power lines and between the obstacles, was the best bet, and the crew discussed the approach. The H-3, like all tail-rotor helicopters, must be pointed roughly into the wind to ensure stability. Otherwise, the aircraft might yaw unexpectedly, with changes in tail-rotor efficiency.

The pilots can only see ahead or to the sides; they must follow the crew chief's calls to keep from fouling the main rotor, tail boom or wheels. During the flood, for example, the crew chief verbally maneuvered the helo into recovery zone, the tail tucked neatly between a tree and an antenna, the rotor just feet from cables. The copilot kept one hand on the engine controls while the pilot made small inputs to maintain their exact position.

Once in position, the rescue swimmer descended on the hoist, explained to the frightened, shiver-

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ing evacuees what they were going to do, and hoisted them up into the open cargo door where the crew chief pointed to seats. It had to be done with speed and precision – no one on the crew was comfortable hovering this low, so close to power lines.

Late one day, a crewman noticed a solitary man and his dog walking down one of the high, dry roads. Something about the way the man walked and held onto his dog rang a bell.

“Hey, sir,” he told his HAC, “we have to land. I think that guy is blind.” Sure enough, the seeing-eye dog had kept the elderly man on dry land for more than a day, and they were near collapse.

The rescue of another dog nearly led to an engine failure. As the aircrew carried an elderly couple aboard, their small dog jumped in unobserved. As the H-3 transitioned to forward flight, the dog apparently wanted to see where they were going and jumped onto the communication console between the pilots. The crew chief hooked into the ICS and heard the pilots asking to get the dog out of the cockpit. The little dog didn’t like being grabbed and took off, clawing his way toward the glare shield and resetting the IFF codes, radio frequencies, and securing the fuel-boost pumps. Only the guards over the switches on the fuel valves prevented fuel being cut off.

Just as the pilots had calmed down, found their freqs, and gotten a new squawk, the rescue swimmer plugged into the ICS. “Hey, did anyone know there’s a dog in here?” he asked.

Often there just wasn’t a procedure or instruction that fit the situation. How do you hoist a newborn? A crew chief faced a panicky mother as the swimmer held her small child.

The baby ended up making the trip on his own in the crew chief’s parachute bag.

Another crewman spotted a woman and child caught in rushing water. As the pilots moved into position to lower the swimmer for pickup, the struggling pair fell face first into the rushing water and were

immediately swept away by the current. The HAC immediately took advantage of the H-3’s boat hull and landed downstream of the pair, half floating, half hovering in the river. With the helo turned toward the banks of the stream the crew scooped them into the open cargo door.

Ltjg. Severson flies with HC-2.

Slugs Above

by LCdr. Fred Shelton

Unseen by the TV cameras, but a major part of the effort, E-2s from several squadrons helped sort out the congestion and relay vital information. Naval Air Reserve squadron VAW-78’s experience was typical.

As rain changed normally placid rivers into caldrons of destruction—in some places raising river levels 43 feet above normal, stranding people and animals on rooftops—north-central North Carolina became a SAR coordinator’s worst nightmare. Local and state rescue workers were instantly overwhelmed with the worst inland flooding of the century.

As federal officials began helping, someone thought to call on the Hawkeye. Several East Coast squadrons went into action, assuming duties as airborne mission commander. VAW-78 was among the first on scene. Hawkeye crews were in the air for the better part of six days, coordinating up to 25 rescue helicopters at a time, from all branches of the service.

As the first crews in the air soon realized, all the sophisticated radar and IFF equipment at our disposal weren’t worth a whole lot. From

15,000 feet, even the old eyeball wasn’t very helpful.

Upon hearing the frustrations of our first airborne crew and recalling the old Boy Scout motto of “Be prepared,” I ran to the parking lot and retrieved my 1999 Rand-McNalley road atlas from my car. Flipping to the North Carolina pages, we found that the atlas, mated with the copy machine, would prove to be an invaluable asset.

After issuing copies to our crew, we were more prepared to handle the deluge of raw information from rescue crews on the ground. Our situational awareness instantly multiplied.

The names of the rivers, roads, and towns now had meaning. We now knew where “Six miles east of Interstate Ninety-Five” was.

Now that we were in the ballpark, we needed to find the base paths. Most of the helicopter crews



didn't know the area. We asked the sheriffs and rescue personnel for landmarks to help guide our helo crews, pointing out water towers, prominent structures, and other distinguishing ground characteristics.

"Follow Route One Twenty-Two north to the Princeville water tower. Look to your left, and you'll see the high school. Land on the football field in the back." For the run to the



Norfolk Red Cross, we chose a Norfolk-based Navy H-3 crew whose pilots lived in Norfolk and knew the downtown area.

As the missions progressed, the command center converted most of the emergency calls to latitude and longitude, allowing us to


enter the coordinates in our system and provide immediate and accurate close control to the rescue helicopters.

Perhaps never before has an aircrew of any Hawkeye squadron had the opportunity to work with people from every department of the DoD, Coast Guard, FEMA, civilian, and state and local authorities simultaneously during a single mission. In one instance, because of atmospheric conditions, we couldn't communicate with the Air Force command center, so we had Coast Guard Air Operations relay our requests and answers via telephone. Also, as new players checked in, we had to contact ATC and get squawks assigned.

Keeping civilian sightseers clear was another challenge. Just like a car accident on the interstate creates an instant army of onlookers, the flooded rivers instantly drew news helicopters

and several light civilian aircraft. ATC warned us of the traffic they were tracking, but several VFR squawkers were always present, creating just one more headache.

Despite vast differences in operating procedures between all

the players, our aircrews were able to make immediate adjustments creating a single, cohesive, rescue operation. If nothing else, this was a great lesson on flexibility, common sense, and the urgent need to help people in dire trouble. 

LCdr. Shelton flies with VAW-78.

What Did We Learn From All This?

There's little doubt that spring floods or another series of disastrous mid-summer hurricanes are distinct possibilities. Local organizations—no matter whether they are in the Midwest or Southeast—will again be stretched to their limits. Now that the military has shown it can be called on to augment, or even replace, these civilian groups when the threat becomes so great, every squadron that might get the call must be ready. Here are lessons learned you can build on. Input comes from all three units whose experiences were described in this article.

- ◆ The rescue swimmers faced the most physical demands. Having at least two swimmers in each aircraft can double the efficiency and increase safety by allowing a rest period for each swimmer. Also, one swimmer can direct survivors to the pick-up site while the other does the hoists. A corpsman or doctor would also be of great value in the helo.

- ◆ Get local road maps or large-scale charts of the areas. When you study the maps, ask a sheriff's deputy, policeman or rescue worker for help. They know the area better than you and can offer greater knowledge of the geography.

- ◆ Practice confined-area landings, not just in wooded places, but in urban areas, with low obstacles and hard-to-spot power lines.

- ◆ Meals went a long way in sustaining the crews. Even though locals were willing, it was hard for the helo crews in North Carolina to get something to eat. Provide coolers, box lunches, or make other arrangements.

- ◆ E-2s benefit from an area-fam brief by the local emergency services group, stressing the locations of hospitals, staging areas and other bits of important geographical information.

- ◆ All rescue aircraft should carry GPS or at least a working INS. Finding survivors was hard enough, but not being able to relay data points to incoming helicopter crews increased the difficulty.

- ◆ Everyone felt the E-2 was definitely required, even with other fixed-wing types all doing their utmost to sort things out. The E-2 was the only type that had a complete package of sensors—radar, IFF—as well as trained controllers to give directions to everyone. The Hummer's higher orbiting altitude made it more effective.

- ◆ This type of rescue mission is not conducted in a vacuum. There will always be commercial and general aviation aircraft going in and around the area. Only the E-2 is equipped to maintain the big picture and manage transient, stray, or superfluous planes, while also allowing other fixed-wing types like the C-130 to concentrate on managing the rescue.

It's interesting to note that when there was no C-130, the Hawkeye crews took over all responsibilities, integrating into the Air Force and National Guard C3 network, while maintaining close control on as many as 25 other aircraft.

This section was developed with help from LCdr. Rick Sanford, VAW-78's operations officer and an NFO.—Ed.